



Withers, D-M., & Fannin, M. (2019). Digital literacy in the age of the screen? Re-imagining the social pedagogy of the archive. In N. Vansieleghem, J. Vlieghe, & M. Zahn (Eds.), *Education in the Age of the Screen: Possibilities and Transformations in Technology* (pp. 127-139). (Theorizing Education). Routledge.

Peer reviewed version

[Link to publication record in Explore Bristol Research](#)  
PDF-document

This is the author accepted manuscript (AAM). The final published version (version of record) is available online via Routledge at <https://www.crcpress.com/Education-in-the-Age-of-the-Screen-Possibilities-and-Transformations-in/Vansieleghem-Vlieghe-Zahn/p/book/9781138323339> . Please refer to any applicable terms of use of the publisher.

## University of Bristol - Explore Bristol Research

### General rights

This document is made available in accordance with publisher policies. Please cite only the published version using the reference above. Full terms of use are available:  
<http://www.bristol.ac.uk/red/research-policy/pure/user-guides/ebr-terms/>

## Digital literacy in the age of the screen? Re-imagining the social pedagogy of the archive

D-M Withers and Maria Fannin

How do learners acquire digital literacy, and what kinds of digital literacies are required to effectively participate in a digital society? This question has underscored political, cultural and social anxieties about widespread computerisation since at least the early 1980s (Lean 2016). From the vantage point of contemporary digitised culture, the pressing task is to consider digital literacy beyond the limitations of what has been 'dictated by [the] tech companies and self-interested venture capitalists' of Silicon Valley (Emejulu 2014). Can digital literacy ever be thought of as the everyday acquisition of operational grammars that provide individuals and communities with the skills and techniques to read, write and build a digitised world that exists *under and around the screen*? What competencies and pedagogical activities need to be invented to support such ambitions? Furthermore, what institutional locations and imaginaries can be leveraged and re-purposed to support the forging of what Akwugo Emejulu (2014) calls a 'radical digital citizenship': practices which support 'individuals and groups [to] critically analyse the social, political and economic consequences of technologies in everyday life and collectively deliberate and take action to build alternative and emancipatory technologies and technological practices'?

Within the 21st century, digitisation has radically reconfigured the relationship between knowledge, archives and society (Berry 2016). We are embedded in society *through* the digital archive. This makes 'the archive' into something far more than a repository where artefacts are preserved; it is also a tool for population surveillance, control and governance (Day 2014). In this chapter we start from the position that what the digital archive *means*, and *how* it is used within society should remain an open question. This enables us to *imagine* the digital archive as an important site through which the power and knowledge stored within digital infrastructures might be broken down and de-mystified. We re-imagine the digital archive as a *social pedagogic location*, one that is embodied, sensory, materialised and animated in the everyday. As an infrastructural form deeply embedded in the everyday life of a digitised society, the archive is an educational institution– comparable, perhaps, to the school in nineteenth century - in which new conceptions of digital literacy and citizenship could be acquired.

This pedagogical orientation to the digital archive, that aims to re-imagine the social role of the digital and archives, opens up compelling possibilities. Yet there are many barriers to realising such potential, including the changing conditions of reading and writing within digitised societies. A range of thinkers such as Bernard Stiegler, Vilém Flusser, Giorgio Agamben and Dennis Tenen, have theorised the generalised condition of illiteracy that has been created through digital 'disruption'. We use these perspectives on illiteracy as an incitement to invent new pedagogical practices that take place within an expanded conception of the digital archive. We argue that the digital archive has an important

pedagogical role in re-imagining digital literacy. To do this, however, the *social contexts* of the digital archive need to be re-considered. Pedagogical activities must extend beyond the content of archives - sources, texts, images and information - to include the infrastructures - and Meta-Data<sup>1</sup> - that organise such materials. Digital infrastructures - the 'meta' space *about and around* the archival content - are social contexts, in other words, within which new forms of collaborative knowledge can be practiced, shared and developed, and new social encounters with digital illiteracy can become possible.

In this article we place these theoretical, yet pragmatic, provocations in dialogue with the archival legacies of the women's liberation movement. Like many other 'community archives' (Flinn 2010) established in the wake of social movements of 1960s and 1970s, the Feminist Archive is the outcome of grassroots activists who took initiative to collect, organise and preserve heritages that challenged the society they lived in. The archive, in the hands of women's liberation activists, became the location where communities learnt how, in practical terms, to take care of their history, culture and knowledge. This meant collecting content, but also re-imagining *how* building archives might be a social and emancipatory project. We begin this chapter by outlining how the Feminist Archive provides tangible theoretical inspiration through which we re-imagine the social pedagogical role of the digital archive. We then analyse how tropes of illiteracy and dispossession feature in theorisations of the digital, before discussing the pedagogical activities we created to generate dialogue across these different contexts.

### **Feminist Archival legacies - inspiring social pedagogical action**

Activists involved in the UK Women's Liberation Movement established the Feminist Archive in 1978. Originally a modest collection stored in an attic in Shepton Mallet, a town in the South West of England, the collection grew throughout the 1980s to its current size of over 325 meters of archive material covering transnational women-centred social movements of the 1960s-2000s. It is stored across two locations: Feminist Archive South (Bristol) and Feminist Archive North (Leeds). From its improvised, grassroots and precarious beginning, the Feminist Archive is now housed in Special Collections at the Universities of Bristol and Leeds respectively.

The institutionalisation of archival collections generated within revolutionary, women-centred social movements is symptomatic of significant shifts in the construction of knowledge in the late twentieth and early twenty-first centuries. The increased normalisation of gendered perspectives across varied disciplines is notable, and feminist perspectives are increasingly viewed as 'proper knowledge' (do Mar Pereira 2017) within universities (see also Scott 2008). The Feminist Archive was, however, not established with the sole aim of influencing academic debate. The founders of the Feminist Archive were amateur, non-

---

<sup>1</sup> We use the term 'Meta-Data' (always hyphenated and capitalised) rather than the more common version 'metadata' to underscore the existence of 'Meta' as a distinct social location.

archivists who did not ask permission to archive, but did so anyway. They understood that in collecting the documents produced by a 'woman-centred' or 'wmyyn-centred' social movement they were making an epistemic intervention that sought to 'restructure' knowledge in a feminist way (Freer 1986). Indeed, the archive was established as a *community resource*. It aimed to empower women with information that would help them transform their consciousness and become politically active.<sup>2</sup> It is easy to forget the activist social contexts and cultural practices that shaped the genesis of the archive when readers encounter the collections in a Special Collections department at an elite, British university. How then do we:

access and engage [the] archive, from our own time, in a manner which avoids unwittingly lapsing back into and reproducing the underlying rules of discursive and disciplinary foundations? [...] How can we resist the "containing" of these histories and archives of struggle in and through the *methods* and *practices* of academic expertise?' (Gruffydd Jones 2017,71, our italics)

Our response to this question has been, to develop social pedagogic exercises that enable participants to learn about the radical social, political and cultural practices (and the hours of activist labour) that built the archive, and shaped its social purpose. The organisational structure of the Feminist Archive – its building blocks, as it were – was a 'wmyyn-centred' classification system invented to ensure women's lives were not only legible but *prioritised* within the catalogue. This system was the idea of archive founder Jean Freer who viewed archival classification as an important tool for transforming the political consciousness of those who used it. Her scheme was admittedly eccentric by today's standards – it was based on numerological principles and separatist feminist spirituality, designed to remove 'man's' influence from the construction of knowledge. Such intentions are clear in the following categories: A Cosmology, B Communication, C Healing and Divination, D *Humun* Society, E *Hystory* and Politics, F Ecology and G Technology.

Freer's creative approach to feminist information science was not practiced in isolation. Librarians and archivists at the International Archives for the Women's Movement (now known as Atria) and the University of Utrecht, Netherlands developed the European Women's Thesaurus, a separate women-centred classification system. In the world of archiving, a thesaurus is a 'controlled and dynamic vocabulary or list of terms, aimed at describing (or indexing) and locating (retrieving) information in the collections of libraries and documentation centres' (Vriend 2009, 3). As Tilly Vriend states, major classification systems such as the Dewey Decimal and Library of Congress systems are not neutral tools for organising and classifying information and materials, but reflect the particular presumptions of their creators and are the products of social and political forces. The Universal Decimal System has the more well-known examples of how sexism shapes the practices of indexing: in

---

<sup>2</sup> The founding documents of the Feminist Archive can be consulted in the [Feminist Archive \(South\)](#), Bristol: DM2123/1/Archive boxes 68.

this system, for example, 'the term Women could be found under the category Morals and Customs, Menstruation under Medicine, and Lesbian women under categories such as Psychopaths and Hysterics' (Vriend 2009, 3). The European Women's Thesaurus and its precursor, the Dutch Women's Thesaurus, sought to explicitly reject these tendencies and generate new categories. The Feminist Archive adopted the Thesaurus to index its catalogues, and uses it to this day.

The Feminist Archive catalogue - the 'meta' space surrounding the collection - has always, therefore, been a *political* location. It is a site where activists and feminist information scientists have interrogated, and generated new understandings of, the material and *social* implications embedded in the description and organisation of information. Such activities highlight the power wielded by those who categorise, and how information architectures can reproduce cultural marginalisation unless there are deliberate attempts to disrupt their arrangements (see also Brown *et al.* 2016). Understanding these histories encouraged us to focus our pedagogical activities on the archive catalogue. We wanted to explore how digital infrastructures could be opened up through pedagogical practice, enabling practical insights into the constructions of power and knowledge that work through the context of the digital archive.

Our focus on the archive catalogue as a social location in the digital era was also pragmatic. Quite simply, the archive lacks the kind of detailed description required to make it a truly effective resource in a digital information environment. This is wholly due to the technological conditions in which the archive was initially created. Built with the contemporary technologies of the day - pens, paper, typewriters, photocopiers and, later, desktop computers - its catalogue was largely untouched by the rapid technological and infrastructural change of the 1980s and 90s, as global economies became deeply penetrated by 'computerization', and culture and society underwent a 'process of total digitalisation' (Ross 2013, 248). The archive was also maintained for many years through dedicated voluntary, part-time labour. This means both the extent and digitality of the catalogue is limited: basic records are searchable on the University of Bristol's archival collection management system (CALM), yet consulting a paper list remains the most detailed way to learn about parts of the collection. Secondly, the descriptions that do exist are limited. Catalogue items might refer to the theme of a particular topic box, for example 'Health/Medicine 6: Reproductive technology', 'Media 2: Archives, libraries, information services, Fawcett Society, IIAV Amsterdam' or 'Education/Training 2: Sexism in schools, research, equal opportunities, EOC colleges, FE, HE', but these box files in themselves might have 100 or more individual items in them. In this sense, all the feminist information science in the world will not help us to 'discover' the full breadth of these collections because there simply isn't an adequate description for the items.

### **Collective Annotation / Archival Discovery**

Between June-July 2017, we held two, three-hour workshop sessions called Collective Annotation/Archival Discovery. An audience of non-archivists that included academics, artists and those with an interest in the topic were invited to learn about, and participate in, feminist archive catalogue-making. These

workshops built on Withers's research and teaching that explore how Meta-Data can become a discursive and collaborative context within which new modes of historical experience, conditioned by digital technology, can be practiced (Withers 2016, 2018). This work is informed by Bernard Stiegler's claim that 'the epistemic, political and economic stakes of the "digitalisation to come" rest on the conception, development and mass socialisation of such production models of the *épistémè* founded on polemical annotation systems' (Stiegler 2011, 32-33). Meta-Data, in its capacity to enable readers to link and navigate information, he argues, 'will affect more and more both the elaboration of knowledge as well as the conditions for its socialization and transmission' (*ibid*). These workshops, then, attempted to create a context where such polemical annotation systems might be realised. They were spaces to explore how the digital might support the invention of annotation systems that enable participation, collaboration and enrichment of a text or dataset.

From the outset we understood that such systems are very much 'to come,' that is, they are not yet here, and also require *new modes of socialisation*. The concept of 'Meta-Data' itself was not intuitive for many participants, despite increased vernacularisation after the Edward Snowden affair (Dencik *et al.* 2016). In a previous session at the Centre for Contemporary Arts in Glasgow (2016), and in informal conversations with colleagues prior to our sessions, Withers found that framing the activity in ways that foregrounded technical knowledge (i.e., we will learn how to write Meta-Data *correctly*) generated subtle anxieties about 'getting it right'. We therefore wanted to mitigate this kind of psychic resistance in the early part of the session. Instead our aim was to create an environment where participants could feel comfortable in their state of a generalised and shared 'illiteracy', transforming these feelings into a tool for self-reflection and empowerment. Our sessions then, were an opportunity for to 'go back to kindergarten [...] to get back to the level of those who have not yet learned to read and write' (Flusser 2011, 157). This is not to say that psychic resistance and discomposure did not circulate within our sessions. They did, certainly, and especially in moments when we invited participants to incorporate digital grammars from the Meta-Data schema Dublin Core in their annotation activities, as shall be described below. Overall, our intention was to introduce learning practices extracted from and inspired by the technical potential of Meta-Data - systematically categorising artefacts, writing descriptions, tagging items with keywords - using them to animate pedagogical conversations and activities.

Our first activity focused simply on generating new descriptions for archival material. We wanted to see how different people responded to the same artefact. In doing so, this facilitated conversations about the role of subjectivity when writing archival descriptions. The archive profession is traditionally guided by the principle of the archivist's neutrality; in reality such neutrality is harder to achieve. As we have already made clear, the Feminist Archive is not a *neutral* archive. It was established as an epistemic intervention; its contents have been directly extracted from the embodied experiences of a diverse social group who have been silenced, invisible and caricatured throughout most of history. There are also multiple voices in the archive: it documents everyday, vernacular experiences rather than polished, detached *rational* knowledge. The materials in

the feminist archive are excessive - they are archives of feelings, created in the vicinity of trauma (Cvetkovich 2003). How can the neglect and violence suffered at the hands of a sexist medical establishment be described without acknowledging the sense of such enduring injustice encountered through the archival record? Is it possible to remain detached when describing the border violence of the immigration system, and its impact on women and children? If we bring our personal feelings and responses into the catalogue, is this how the digital archive becomes social, that is, relational?

To begin to explore these questions, we invited participants to describe the same item we had pre-selected for the workshop. This was an anonymous girl's account of her first experience of menstruation, written in the late 1970s. Already the document of an excessive, leaky body, we prompted descriptions with the following instructions and questions:

- Describe the item to someone as if they cannot see it.
- How will its 'materiality' be included in the description?
- What keywords or 'tags' can you use? (generate as many as you want)
- What should / shouldn't be included?
- Be as detailed as you can....

As might be expected, the descriptions of the artefact varied greatly among participants. Some skillfully and succinctly constructed a summary of the item, offering detailed keywords and detaching themselves from the emotional struggles the account depicted. Others laboured in the mundane details, mentioning names of particular sanitary products, experiences of acute bodily pain and emotional shame, and additional translations of the author's subjective reflections. Material details about the artefact - that it is typed, 2 pages long and includes manual corrections - were included on some of the descriptions. On a pedagogical level, inviting participants to describe the artefacts, and discuss their descriptions with the group, generated confidence and immediate engagement with the activities. This provided a solid ground on which to introduce more challenging exercises later in the session that explicitly connected description practices with learning about Meta-Data.

### **Digital de-skilling and developing interior pedagogies**

The opening exercise opened up the 'Meta' space of the digital archive through familiarising participants with how archival practices are used to organise information in digital infrastructures. Initially, non-technical language was deployed to establish confidence and facilitate participation. Yet we wanted to go further: in line with the intellectual and practical legacy of the Feminist Archive, our aim was to explore how we might use the archive as a social context in which non-experts could acquire digital literacies—how non-experts could build

(upon) the archive. Within a digitised society, digital grammars are the operational socio-technical knowledges that structure existence and everyday environments - even if such structuring is not always transparent - suppressed under flatly designed screens that foreground 'simplicity, minimalism, and lightweight approaches to complexity' (Berry 2016, 113). Such grammars are often framed as resolutely Other to human existence (Evens 2015), written for the digital's 'grammar machines' (Flusser 2011, 6), opaque and difficult to assimilate. Indeed, according to Flusser, numeric code cannibalises alphabetic literacy and its legitimacy.

Is it fanciful to suggest that humans could ever acquire digital grammars, especially at the cognitive level? Perhaps the mass alphabetic *literacy* projects of modernity were equally as ambitious? And '*just as, in print culture, the school was created to develop this kind of knowledge [i.e., alphabetic literacy], we can imagine that a kind of knowledge of the image [the digital] might be constituted*' (Stiegler and Derrida 2002, 58, italics in original). Anxiety of inscription characterises much theoretical work about the impact of the digital on writing, knowledge and its transmission. This suggests that the acquisition of digital grammar is in no way as intuitive or automatic. Agamben, for example, writes how, within the digital, 'the page as material support of writing has been separated from the page as text' and the reading gaze, as an operational technical apparatus, can no longer "'stroll" and move around to gather the characters of writing like the hand gathers a bunch of grapes' (2017, 106-107). In this context the eye, as well as the hand, becomes dislocated: 'digital devices are not immaterial but founded on the obliteration of their own materiality' (ibid., 106).

The obliteration of materiality is one aspect of the wider interruption of the circuit of interiorisation and exteriorisation caused by digitisation. Dennis Tenen describes the double process of interiorisation/exteriorisation as 'the passage of inscription into understanding' (2017, 80), and argues that it 'echoes through the canon of Western philosophical tradition' (ibid., 68). Interiorisation/exteriorisation is how knowledge is encountered, processed, imprinted, retained and transformed in a circuit that conjoins psyche, technics, body and the social. The digital interrupts this process, particularly when information is encountered primarily, and seductively, through the image that screens over its grammatical operations - requiring no exterior mark to convey meaning. How deep, then, should the grammatical 'scratch' be, to effectively inscribe digitised knowledge (Flusser 2011, 11)? To enable the reader/writer to execute it and evolve toward a condition of maturity that, Stiegler argues, was central to the institutionalisation of alphabetic literacy within the context of the Enlightenment? (Stiegler 2010, 28) If we accept the claims of Flusser, Stiegler, Tenen and Agamben - that learning, as a process that intertwines inscription and understanding, has been dislocated by the digital, what pedagogical practices can be developed to re-inscribe the integrity of the circuit?

These questions informed the second half of our learning session that enabled participants to encounter - and interiorise - digital grammars. We drew on Withers's practice of using archival descriptions to write collaborative, Meta-Data 'diaries' or 'letters' to a future reader in the archive. Re-framing Meta-Data



as an epistolary, always already relational form (Hui 2016) helps us appreciate how the way archive catalogues operate is hidden from view (behind the screen), private and interior. Nevertheless, such writing is often *for* a public audience, even if that public do not 'read it' in a straightforward manner: it is often executed through search activities, even if it is never clearly revealed to the person looking for information. Meta-Data, therefore, simultaneously traverses the broken envelope of public/private. The imaginary of 'interior' forms of writing - diaries as a space of learning and reflection, and the relational quality of letters - were also used to encourage experimentation within an informal environment where participants might feel safe and grow. We wanted to ensure people felt like it was perfectly ok to make mistakes, and not 'get it right.' The main point of the pedagogical exercise was precisely not to pass on a set of instructions that participants could *adapt* to. Rather, it was to enable those present to encounter digital grammars - and institute that encounter within an embodied, psychosocial circuit. For all participants, this was the first time the textuality of the digital was revealed to them.

With pencil and paper, handwritten archival descriptions were generated, using the categories from the Meta-Data schema, Dublin Core. Dublin Core was chosen over a number of other schemas for several reasons. It is relatively simple to learn, and participants would have encountered it in their everyday navigations of the internet, albeit without realising it, since it operates 'behind' the screen. Dublin Core is also widely adopted in archives internationally. As with the prior exercise, participants were asked to be as detailed possible (to explore the 'meta' as a space of excess), and pay attention to the materiality of the artefact (corrections, paper tears, staples, if the document is handwritten or typed, etc). Hand-writing the schema categories took additional time which initially generated frustration for some participants. Yet others commented that the format made them 'pay attention in a more detailed way' (Participant a 2017) to what they were describing, and *how* they were describing it. Another participant reflected on the temporal richness of the activity - it enabled her to spend time thinking about what she was reading and writing (Participant b 2017). In this sense, these descriptive activities socialised time and spaces of reflection - delay or *différance* - increasingly compressed by the speed of the digital (Stiegler 2008).

<< Insert Figure 1 and 2 Image of handwritten description using Dublin Core >>

Many participants reflected on how learning about Meta-Data schemes increased their overall operational knowledge of 'the world in' (Participant c 2017) the Feminist Archive. Others talked about the value of 'thinking about descriptions - purpose and intent and use of tags and keywords' (Participant d 2017). One person spoke of how she 'enjoyed thinking about how knowledge and information is categorised, particularly in relation to archives and feminist perspectives (Participant e 2017). Others commented on the scale of the challenge - that the 'amount of information to discover and investigate is huge' (Participant a 2017), and that there is 'so much to learn' (Participant f 2017). This feedback indicates how the exercise extended the social location of the archive, enabling it to become a site to be explored and contribute to.

One participant wrote a detailed reflection on the activity, and drew an analogy between collaborative feminist archival practices and the sewing of a patchwork quilt:

Each piece of archive material is quite different in content, size, shape and form, and must be carefully analysed, in order to hand sew it into place within the archive, through giving it; a title, creator, subject, description, publisher, contributor, date, type, format, identifier, source, language, relation, coverage and rights. Each piece needs to be carefully positioned in relation to other pieces. Eventually this information will be threaded together on the world wide web, to create a large, open ended quilt of meta data. The experience of describing the archival material was mesmeric, repetitious, labour intensive and relational. It is women's work. *The act of archiving, became for me, a handmade act, an act from the body and an act of making herstories visible* (Bossom 2017).

Re-introducing the writing hand as a technical instrument and 'giver' of embodied grammar was a vital part of our activity. As Bossom's description makes clear, the pedagogical context we created was active and embodied, a site to examine how 'ideas have become external and to copy them out is repossession', and the ways 'the physical act of writing is aligned to the act of thinking' (Leslie 2017, 48). Theorisations of digital illiteracy often present the digital as an unforgiving and absolute rupture, yet the reality is we exist in a hybrid state, pressed into and against diverse modes of technical inscription and transmission. As Flusser notes: "we are just about to leave notation ([linear] writing as such) to apparatuses ...we are about to emigrate into the 'universe of technical images'" so that we can look down from there at history being written by apparatuses. But this colonisation is an extremely complex process. *Writing cannot just be overcome*, because 'the images we contemplate feed on history' and the process 'stumbles on literal thinking, on letters' (Flusser 2011, 21, our italics).

Our aim, then, was to reclaim the stumbling hand in order to reactivate an inscriptive circuit between 'inside' and 'outside', the passage from inscription to understanding that, several theorists claim, has been interrupted by the digital. We created a collaborative social context within which the textualities of the Meta-Data schema - the ingestion of peculiar, alien, machine readable forms like `<?xml version="1.0" encoding="UTF-8"?>` - might enfold archival description and 'pass through your mind, your body, your hand, completing a full circuit, from body into language, from language back through the body again' (Leslie 2017, 48). We reiterate here that within the pedagogical activity the need to learn the schema of classification *perfectly* was secondary to the psychic and embodied interiorisation of grammatical forms. In reality, one learns with the whole body, not just the mind. Yet if we accept that the digital interrupts the learning circuit in some fundamental way (our minds cannot imprint the grammar, and the paper does not hold the mark), such sensory and embodied encounters with grammars of the digital aim to create initial contact points where such circuits might be re-calibrated. Such activities may seem infantile but, as noted earlier,

we remain in the kindergarten of digital literacy. Such moments of familiarity, we speculate, need to precede movement under and around the screen/ image that always already obstructs the very possibility of such an infantile encounter.

### **Digital archives as social pedagogic spaces of speculative possibility**

The Feminist Archive presents itself as a gift. Composed by layers of feminist knowledge, accrued through deliberate acts of acquisition in the recent past, it remains a social location on which we might project our imaginations of what a socially engaged digital archive might be. Such mobilisations of imagination and action are vital if the digital archive is to be reconfigured as a cultural, institutional and *social* location in which, and through which, digital literacies can be acquired *in the long term* - those literacies that exist above, alongside and under the screen, in the 'meta' space, in and around of a digitised society. We have argued the digitised era opens up the potential to realise the archive as an animate location where (lifelong) learning occurs. If the de-skilled society is to be re-skilled, why not turn to the archive, an institutional site where knowledge is preserved and transmitted across generations? Viewing the digital archive in this manner requires a modification in how we approach it, certainly. But such a modification is supported by the practical action we inherit from the Feminist Archive - a lived context in which operational technical and social knowledge can be seized and re-distributed to empower the marginalised and de-skilled.

### **Literature**

Agamben, G. 2017. *The Fire and the Tale*. Stanford: Stanford University Press.

Berry, D. M. 2016. 'The Post-Archival Constellation: The Archive under the Technical Conditions of Computational Media.' In: Blom, I, Røssaak, E and

Bossom, F. 2017. 'Archive'. , Accessed 9 January 2018.  
<https://www.francesbossom.com/single-post/2017/07/01/Archive>

Cvetkovich, A. 2003. *An Archive of Feelings: Trauma, Sexuality, and Lesbian Public Cultures*. Durham: Duke University Press.

Day, R.E. 2014. *Indexing It All: The Subject in the Age of Documentation, Information, and Data*. Massachusetts: MIT Press.

Dencik, L., Hintz, A., and Cable, J. 2016. 'Towards Data Justice? The Ambiguity of Anti-Surveillance Resistance in Political Activism.' *Big Data & Society* 3(2): 1-12.

Derrida, J. and Stiegler, B. 2002. *Echographies of Television*. Trans. Jennifer Bajorek. Cambridge: Polity.

do Mar Pereira, M. 2017. *Power, Knowledge and Feminist Scholarship: An Ethnography of Academia*. Abingdon: Routledge.

- Emejulu, A. 2014. 'Towards a Radical Digital Citizenship.' Accessed 9 January 2018. <http://online.education.ed.ac.uk/showcase/towards-radical-digital-citizenship>.
- Evens, A. 2015. *Logic of the Digital*. London: Bloomsbury.
- Flinn, A. 2010. 'An Attack on Professionalism and Scholarship? Democratising Archives and the Production of Knowledge.' *Ariadne* 62. Accessed May 11, 2017. <http://www.ariadne.ac.uk/issue62/flinn>.
- Flusser, V. 2011. *Does Writing Have a Future?* Minnesota: University of Minnesota Press.
- Freer, J. 1986. 'Feminist Archive: Explanatory Notes by the Founder 1986,' Feminist Archive South DM2123/1/Archive boxes 68.
- Gruydydd Jones, B. 2017. 'Comrade, Committed, and Conscious: The Anticolonial Archive Speaks to Our Times.' In: *Politics of African Anticolonial Archive*, El-Malik, S. and Kamola, I. A., eds. 57-83. London: Rowman Littlefield International.
- Hui, Y. 2016. *On the Existence of Digital Objects*, Minnesota: Minnesota University Press.
- Lean, T. 2016. *Electronic Dreams: How 1980s Britain Learned to Love the Computer Hardcover*. London: Bloomsbury.
- Leslie, E. 2017. 'Acts of Handwriting.' In: *Monica Ross: Ethical Actions A Critical Fine Art Practice*, Hiller, H. and Treister, S. eds. Berlin: Sternberg Press. 42-52.
- Lundemo, T. eds. *Memory in Motion. Archives, Technology, and the Social*, 103-125. Amsterdam: Amsterdam University Press.
- Ross, D. 2013. 'Pharmacology and Critique after Deconstruction.' In: *Stiegler and Technics*, Howells, C. and Moore, G. eds., 243-259. Edinburgh: Edinburgh University Press.
- Scott, J. W., ed. 2008. *Women's Studies on the Edge*. Durham, NC: Duke University Press.
- Stiegler, B. 2008. *Technics and Time, 2: Disorientation*. Trans. Stephen Barker. Stanford: Stanford University Press.
- 2010. *Taking Care of Youth and the Generations*. Trans. Stephen Barker. Stanford: Stanford University Press.
- 2011. 'Distrust and the Pharmacology of Transformational Technologies.' Trans. Daniel Ross. In: *Quantum Engagements*, Zülsdorf, T., Coenen, C., Ferrari, A., Fiedeler, U., Milburn, C., and Wienroth, M., eds., 27-30. Heidelberg: AKA Verlag.

Tenen, D. 2017. *Plain Text: The Poetics of Computation*. Stanford: Stanford University Press.

Vriend, T. 2009. 'It's a Women's World in the Women's Thesaurus: On the History, Development and Use of the (European) Women's Thesaurus. In: *Women's Memory: The Problem of Sources: 20th Anniversary Symposium of the Women's Library and Information Centre Foundation*, D. Fatma Türe and Birsen Talay Keşoğlu, eds., 1-12. Istanbul: Kadir Has University. Available from: [https://www.atria.nl/epublications/2009/Tilly\\_Vriend.pdf](https://www.atria.nl/epublications/2009/Tilly_Vriend.pdf), accessed 16 March 2018.

Withers, D. 2015. *Feminism, Digital Culture and the Politics of Transmission: Theory, Practice and Cultural Heritage*. London: Rowman Littlefield International.

Withers, D. 2016. 'Meta-Data Diaries: Collective Annotation'. Workshop given at the Centre for Contemporary Arts, Glasgow. <http://www.cca-glasgow.com/programme/invisible-knowledge-metadata-diaries>

Withers, D. 2018. 'Meta-Data Diaries 1: The Feminist Archive.' In: *Inscription*, Johansson, K-M, 177-204. Regional State Archives in Gothenburg.